

## **VEHICLE COVERING SYSTEM**

As the cost of vehicles has increased dramatically over the years, vehicle owners have sought to maintain the appearance of their vehicles by using vehicle covers, which are designed to surround the vehicle entirely to protect it from rain, dust, bird droppings and other such airborne hazards.

However, vehicle covers tend to be expensive and bulky, such that their continued use becomes tiresome to the vehicle owner. They are often difficult to deploy, being that they have a defined front and back designed to fit the particular vehicle for which they are provided, and are likewise difficult to remove and store, taking up considerable storage compartment space unless folded correctly.

While existing vehicle covers will do an exceptional job of protecting a vehicle when used, due to the difficulties in their use and storage, vehicle owners may tend to avoid using them after the first few times. Likewise, once such covers begin to deteriorate, such as by tearing or the like, they are expensive to replace.

It would be advantageous to design a vehicle covering system which is both easy to deploy and easy to store, and preferably so inexpensive as to be disposable upon deterioration of the cover.

## **BRIEF SUMMARY OF THE INVENTION**

In a first embodiment, the present invention is directed to a vehicle covering system comprising a flat sheet material of a length sufficient to extend the length of the vehicle and means for attaching said flat sheet material to the vehicle.

In another embodiment, the present invention is directed to a vehicle covering system comprising a continuous supply of flat sheet material and means for attaching said flat sheet material to the vehicle.

## **DETAILED DESCRIPTION OF THE INVENTION**

I have recognized that the portions of a vehicle which are most susceptible to environmental damage are those portions which are essentially horizontal: the engine cover (hood); the storage compartment cover (trunk or boot); the roof and the windshield and rear window. Because these portions of the vehicle are essentially horizontal, airborne environmental hazards,

such as acid rain, dust and bird droppings, tend to deposit on such surfaces and remain in the same spot at which they are deposited, thus causing painted portions of those surfaces to spot. Likewise, those essentially horizontal surfaces are most susceptible to deterioration due to exposure to the ultraviolet rays of the sun.

The side portions of the vehicle which are essentially vertical, such as the doors and side windows, are less susceptible to damage from airborne hazards, such as acid rain, since the rain easily drains off the vertical surfaces. Accordingly, I have determined that it is not so necessary to cover the sides of the vehicle, in comparison to the top of the vehicle.

According to the present invention, a vehicle covering system is described in which a flat sheet of relatively flexible material is disposed in the storage compartment of a vehicle, which is readily extendible over the top length of the vehicle and fastened to the vehicle by means of fasteners which are attached at the opposite end of the vehicle from the storage compartment.

It is preferable that the sheet material be relatively inexpensive, such that it can be supplied in a substantially continuous supply, on perhaps a roll or folded into a box, and once a portion of the sheet is used, it can be torn or cut off of the continuous supply and discarded. Then, on next use, a fresh portion of the flat sheet can be withdrawn from the supply roll or box.

By 'continuous supply' I mean that the flat sheet material is supplied in a manner in which multiple lengths of the sheet material, each sufficient in length to extend over the top length of the vehicle, are provided in a single, long sheet, such as in a roll of such material, or a folded supply of such material, either of which can be disposed within a supply box. For example, in the case of a roll material, it can be stored in a supply box similar to that used for aluminum foil, plastic wrap or the like. The supply box and the roll or folded supply of flat sheet material are substantially the width of the vehicle to be protected, but not too wide to fit within the storage compartment of the vehicle. The supply box can be provided with a knife edge, such as the serrated edge provided on the box of aluminum foil, to facilitate tearing or cutting of the used flat sheet material to be disposed. Alternatively, a roll of sheet material can be disposed on a cardboard tube which can be inserted into a holder mounted within the vehicle's storage compartment, similar to a roll of paper towels and a paper towel holder.

The flat sheet material can be selected from a number of suitable compositions, with the proviso that the chosen composition be thin and flexible enough to be supplied in a bulk quantity, such as in a roll or folded supply, which will fit within the storage compartment of the vehicle to be  
5 protected and provide enough flat sheet material for at least two vehicle lengths of such material. Preferably, the amount of flat sheet material provided within the bulk quantity is adequate for ten or more vehicle lengths, such that the user can replace the flat sheet material often, without excessive cost.

10 Depending on the hazard to be protected against, the flat sheet material can be made of paper, but more suitably is made from a water-resistant material such as plastic film, non-woven thermoplastic sheet, or the like. In order to protect against ultraviolet radiation from the sun, the sheet material should be opaque to at least ultraviolet light. To protect from bird  
15 droppings, the sheet material can be merely paper. Of course, in order to protect from acid rain and the like, the sheet material should be chosen from an opaque plastic film or non-woven fabric, which will provide protection from all of the above hazards.

The means for attaching the flat sheet material to the vehicle are  
20 suitably selected from a number of possibilities, and preferably are readily attached to the vehicle itself without difficulty. For example, clips such as those used for employee identification badges, sold as the "U" Thumb Grip Clip (JESS 55 Enterprise Inc., Valmont, CA 94002) can be attached to a flat magnet, or to a suction cup (Adams Safety Suction Cup, Adams Mfg. Corp,  
25 Portersville, PA 16051), either of which can be removably mounted on the end of the vehicle opposite it's storage compartment. Use of these attachment means is as simple as clipping the flat sheet material into place. Alternatively, it is possible to provide each length of flat sheet material with a hook-and-loop attachment system, commonly known as Velcro®, wherein  
30 such system has both the hook side and the loop side mounted on an adhesive backing. Then either side can be attached to the vehicle, as described above, and the opposite side attached to the flat sheet material. It would also be possible to provide the flat sheet material with one side of a snap, and to provide the opposite side of the snap on an adhesive backing or  
35 with a sheet metal screw to attach to the vehicle. Additionally, it would be possible to coat the leading edge of the flat sheet material with an adhesive

which could be adhered to the vehicle. In all cases of using an adhesive, the adhesive should be chosen such that it will not mar the painted surfaces of the vehicle, and is readily removable without damage to the underlying surface, unless the mounting of the attachment means is intended to be permanent.

5 In use, after parking the vehicle, the driver will open the storage compartment and extract a length of the flat sheet material sufficient to cover the top of the vehicle, from front to back. Since the flat sheet material is relatively thin and flexible, the storage compartment cover (e.g. trunk lid or  
10 hatch back) can be closed on the flat sheet material, holding it in place at that end of the vehicle, and the flat sheet material is then extended over the top of the vehicle and attached to the opposite end via the attachment means. In this manner, the horizontal surfaces of the vehicle which are most at risk of airborne hazards and deterioration due to ultraviolet radiation, are covered  
15 and protected by the flat sheet material.

After use, the flat sheet material can be loaded back into the storage compartment into a relatively small volume, since it is thin and flexible, and later reused until the used portion of the flexible sheet material is exhausted, such as by holes, cracks, tears or dirt. At that point, the exhausted sheet  
20 material can be torn away from the supply, and a fresh portion of sheet material withdrawn from the supply.

It is, of course, possible that the vehicle to be covered has a storage compartment situated such that the entire vehicle cannot be covered when the flat sheet material is attached within the storage compartment. In such  
25 instances, the sheet material can be torn from the supply and extended over the remainder of the vehicle and attached by additional attachment means mounted such that the sheet material covers the storage compartment and the otherwise uncovered portion of the vehicle behind or in front of the storage compartment.